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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Complete if Known

Application Number

Filing Date

8 February 1999

First Named Inventor

Roundhill, David

Group Art Unit

Examiner Name _____

Attorney Docket Number

ATL 187

(use as many sheets as necessary)

Sheet

1

of

3

U.S. PTO
09/247343

02/08/99

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Date _____

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12-29-00

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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/08B (10-96)

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| Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i> | | | | Complete if Known | |
| | | Application Number | 09/247, 343 | | |
| | | Filing Date | 8 February 1999 | | |
| | | First Named Inventor | Roundhill, David | | |
| | | Group Art Unit | | | |
| | | Examiner Name | | | |
| Sheet | 2 | of | 3 | Attorney Docket Number | ATL 187 |

| OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS | | | |
|---|-----------------------|---|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| M | 12 | STARRITT, Evidence for ultrasonic finite amplitude distortion in muscle using medical equipment, JASA 77(1), Jan 1985 at 302-06 | |
| | 13 | MUIR, Prediction of nonlinear acoustic effects at biomedical frequencies and intensities, Ult. in Med. & Biol., Bol. 6 at 345-57 (1980) | |
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| | 16 | WARD, Non-linear propagation applied to the improvement of lateral resolution in medical ultrasound scanners, 1995 World Cong. on Ult. at 965-68 | |
| | 17 | LAW, Ultrasonic determination of the nonlinearity parameter B/A for biological media, JASA 69(4), April 1981 at 1210-12 | |
| | 18 | DUNN, ET AL., Nonlinear Ultrasonic Wave Propagation in Biological Materials, 1981 Ultrasonics Symposium at 527-32 (IEEE) | |
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| V | 22 | BURNS ET AL., Harmonic Power Mode Doppler Using Microbubble Contrast Agents, J.E.M.U., vol. 16, no. 4 at 132-42 (Masson, Paris, 1995) | |

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| | | | First Named Inventor | Roundhill, David |
| | | | Group Art Unit | |
| | | | Examiner Name | |
| Sheet | 3 | of | 3 | Attorney Docket Number ATL 187 |

| OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS | | | | |
|---|---|---|--|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | T ² |
| | 23 | BURNS, ET AL., Harmonic Imaging Principles and Preliminary Results, Angiology, vol. 47, no. 7. Part 2 at 563-574 (Jul. 1996 New York) | | |
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| | 25 | AVERKIOU, ET AL., Measurements of Harmonic Generation in a Focused Finite-Amplitude Sound Beam, J. Acoust. Soc. Am. 98(6) at 3439-42 (December 1995) | | |
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| | 27 | SCHROPE, ET AL., Simulated Capillary Blood Flow Measurement Using a Nonlinear Ultrasonic Contrast Agent, Ultrasonic Imaging 13 at 134-58 (Acu. Press 1992) | | |
| 28 | SCHROPE, ET AL., Second Harmonic Ultrasonic Blood Perfusion Measurement, Ult. In Med. & Biol. 19(7) at 567-79 (Pergamon Press 1993) | | | |
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